

CLAIMS

What is claimed is:

1. An endodontic fiber suitable for the local delivery and sustained release of one or more medicaments incorporated therein to an intracanal treatment site, comprising a copolymer vehicle having incorporated therein one or more medicaments.
2. The endodontic fiber of Claim 1, wherein the medicament is selected from the group consisting of antibiotics, anti-inflammatory agents, antimicrobial agents, immune reagents, and immunomodulatory agents or a combination thereof.
3. The endodontic fiber of Claim 2, wherein the medicament is an antibiotic selected from the group consisting of clindamycin, tetracycline and combinations thereof.
4. The endodontic fiber of Claim 1, wherein the fiber is an ethylene vinyl acetate copolymer having a diameter of from about 0.1 mm to about 2.0 mm and the antibiotic is clindamycin incorporated at a dose of about 2.0 mg to about 5.0 mg mg per 10mm of fiber.
5. The endodontic fiber of Claim 2, wherein the medicament comprises a combination of an antibiotic and an anti-inflammatory agent.
6. A modified periodontal fiber suitable for the delivery and sustained release of medicament incorporated therein to an intracanal treatment site, comprising a copolymer vehicle having incorporated therein one or more medicaments, wherein the copolymer is treated to decrease its surface tackiness and increase its rigidity.
7. A method for the local delivery and sustained release of a medicament to an intracanal treatment site comprising:
 - (a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein;
 - (b) positioning the fiber of(a) in the root canal such that the fiber is in direct contact with the treatment site; and

- (c) maintaining the fiber at the treatment site, wherein the medicament is delivered to the treatment site at a controlled rate.
- 8. The method of Claim 7, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.
- 9. A method of treating an endodontic bacterial infection comprising the steps of:
 - (a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein;
 - (b) inserting the fiber of (a) into the root canal such that the fiber is in direct contact with the treatment site; and
 - (c) maintaining the fiber at the treatment site, wherein the antibiotic is delivered to the treatment site.
- 10. The method of Claim 9, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.
- 11. A method of disinfecting a root canal receiving endodontic treatment comprising:
 - (a) obtaining an endodontic fiber suitable for intracanal use having one or more medicaments incorporated therein;
 - (b) inserting the fiber of (a) into a debrided and irrigated root canal such that the fiber is in direct contact with the treatment site; and
 - (c) maintaining the fiber at the treatment site, wherein the medicament is administered to the treatment site at a controlled rate.
- 12. The method of Claim 11, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.
- 13. A method of reducing inflammation in periapical tissue of a tooth undergoing endodontic treatment, comprising:
 - (a) obtaining an endodontic fiber suitable for intracanal use having incorporated therein an anti-inflammatory agent;
 - (b) positioning the fiber into a debrided and irrigated root canal such that the fiber is in direct contact with the inflamed tissue; and

- (c) maintaining the endodontic fiber at the treatment site, wherein the anti-inflammatory agent is delivered to the site of inflammation.
- 14. The method of Claim 13, wherein the endodontic fiber is a modified periodontal fiber or an intracanal fiber.
- 15. An intracanal fiber which is an ethylene vinyl acetate copolymer comprising less than about 20% vinyl acetate.
- 16. An intracanal fiber according to Claim 15, comprising less than about 15% vinyl acetate.
- 17. An intracanal fiber according to Claim 15, comprising less than about 10% vinyl acetate.
- 18. An intracanal fiber according to Claim 15, comprising about 9.3% vinyl acetate.
- 19. An intracanal fiber according to Claim 15, having a diameter of less than about 0.5mm.
- 20. An intracanal fiber according to Claim 18, having a diameter of less than about 0.5 mm and one or more medicament incorporated therein.